

In the Claims:

Please amend the claims as shown:

1-117 (Cancelled)

118 - 121 (Cancelled)

122. (Currently Amended) A method for coding input image data in a predetermined signal format, comprising:

dividing said image data into block units; and

carrying out orthogonal transformation in said block units at a time when data output value $X0 + X1$ and data output value $X0 - X1$ are generated from two data input values $X0$ and $X1$ by at least a function of said orthogonal transform transformation, said orthogonal transformation comprising the following steps:

setting said $X0$ value in a register A and setting said $X1$ value in a register B;

subtracting said $X1$ value from said $X0$ value to obtain a new $X0$ value and storing said new $X0$ value in register A;

shifting said $X1$ value used as a binary number by one bit to a MSB side to obtain a new $X1$ value and storing said new $X1$ value in register B;

adding said new $X0$ value to said new $X1$ value to obtain a further new $X1$ value and outputting said further new $X1$ value as a sum of said new $X0$ value and said new $X1$ value.

123 - 130 (Cancelled)

131. (Previously Presented) A coding apparatus for coding input image data in a predetermined signal format by dividing said image data into block units and by carrying out orthogonal transformation in said block units at a time when data output value $X0 +$

X1 and data output value $X0 - X1$ are generated from two input data values X0 and X1 by at least a function of said orthogonal transformation, said apparatus comprising:

a register A into which said X0 value is stored;

a register B into which said X1 value is stored;

a first subtraction means for subtracting said X1 value from said X0 value to obtain a new X0 value and store it into said register A, and outputting said new X0 value as a difference between said X1 value and said X0 value;

a shift register for shifting said X1 value used as a binary number by one bit to a MSB side to obtain a new X1 value and store it in said register B; and

addition means for adding said new X0 value to said new X1 value to obtain a further new value X1 and outputting said further new value X1 as a sum of said new X0 value and said new X1 value.

132 - 134 (Cancelled)